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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,107

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Motonori Yamamoto

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3025

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09/21/2011

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EXAMINER

FANG, SHANE

ART UNIT

PAPER NUMBER

1766

MAIL DATE

DELIVERY MODE

09/21/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/567,107	YAMAMOTO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SHANE FANG	1766	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-7 and 9-20 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Response to Amendment*

- No claim amendment.
- The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- The previous 103 rejections of claims 1-7 and 9-20 over Warzelhan et al. in view of Nakamura et al. have **been maintained**.

### *Claim Rejections - 35 USC § 103*

1. Claim 1-7 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warzelhan et al. (US 6018004, listed on IDS) in view of Nakamura et al. (US 5006610).

The rejections of claims 1-7 and 9-20 as stated in the previous office action are repeated here as such. See ¶1 of the last action.

### *Response to Arguments*

The argument for allowance of amended claims has been fully considered but not persuasive.

The applicant argued Nakamura fails to disclose a copolymer of styrene and glycidyl methacrylate and acknowledged Nakamura discloses a copolymer of styrene and glycidyl acrylate (Pg. 1-3, ¶1) by showing a drawing the structures of Nakamura. The examiner asserts Nakamura's copolymer of styrene and glycidyl acrylate meets the

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claimed copolymer of styrene and glycidyl (meth)acrylate of claim 1, because based on the general consensus of polymer terminology (particularly acrylics polymerization) and broadest reasonable interpretation, (meth)acrylate (parenthesis emphasized) is considered to mean methacrylate or acrylate. This interpretation is WIDELY known, and well accepted in the art.

The applicant argued Nakamura (Pg.3, ¶2) fails to disclose biodegradable polymer blends. Nakamura is silent but does not exclude biodegradable polymer blends, so Nakamura does not teach away from Warzelhan and this invention. Furthermore, Warzelhan's composition is biodegradable (inherently). The composition comprising the Warzelhan's composition plus the copolymer of styrene and glycidyl acrylate would inherently be biodegradable, because the biodegradation occurs at the weakest bonds of the component of Warzelhan's composition. The applicant fails to show evidence to defeat this rationale.

The applicant merely argued (Pg.3, ¶3) there is no reasonable expectation to use Nakamura's copolymer to provided impact resistance to the composition of Warzelhan. Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness. In re **Rinehart**, 531 F.2d 1048,189 USPQ 143 (CCPA 1976). Nakamura teaches adding the copolymer of styrene and glycidyl acrylate would yield polyester molds having optimal impact resistance, optimal heat deflection, and excellent mechanical property

Therefore, as to Claims 1-7 and 9-20, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the biodegradable

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resin composition disclosed by Warzelhan and further added the copolymer of glycidyl acrylate/styrene of Nakamura at the disclosed loading, because the resultant resin mixture would yield molds having optimal impact resistance, optimal heat deflection, and excellent mechanical property.

Therefore, the previous 103 rejections of claims 1-7 and 9-20 over Warzelhan et al. in view of Nakamura et al. have **been maintained**.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANE FANG whose telephone number is (571)270-7378. The examiner can normally be reached on Mon.-Thurs. 8 a.m. to 6:30 p.m. EST..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sf

/RANDY GULAKOWSKI/

Supervisory Patent Examiner, Art Unit 1766